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भारत सरकार
Government of India

भौगोलिक उपदर्शन पत्रिका

GEOGRAPHICAL INDICATIONS JOURNAL



बौद्धिक सम्पदा
भारत
**INTELLECTUAL
PROPERTY INDIA**

भौगोलिक उपदर्शन पंजीकृति,
बौद्धिक सम्पदा अधिकार भवन,
जी.एस.टी. रोड, गिण्डी,
चेन्नै - ६०० ०३२.

**Geographical Indications Registry,
Intellectual Property Rights Building,
G.S.T. Road, Guindy, Chennai - 600 032.**



**GOVERNMENT OF INDIA
GEOGRAPHICAL INDICATIONS
JOURNAL NO. 113**

NOVEMBER 05, 2018 / KARTIKA 14, SAKA 1940

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OFFICIAL NOTICES

Sub: Notice is given under Rule 41(1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002.

1. As per the requirement of Rule 41(1) it is informed that the issue of Journal 113 of the Geographical Indications Journal dated 05th November, 2018 / Kartika 14, Saka 1940 has been made available to the public from 05th November, 2018.

NEW G.I APPLICATION DETAILS

App.No.	Geographical Indications	Class	Goods
619	Gorakhpur Terracotta	27	Handicraft
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622	Mirzapur Pital Bartan	27	Handicraft
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625	Idu Mishmi Textiles	25	Handicraft
626	Dharwad Pedha (Logo)	29	Food Stuff
627	Chilgoza	31	Agricultural

PUBLIC NOTICE

No.GIR/CG/JNL/2010

Dated 26th February, 2010

WHEREAS Rule 38(2) of Geographical Indications of Goods (Registration and Protection) Rules, 2002 provides as follows:

“The Registrar may after notification in the Journal put the published Geographical Indications Journal on the internet, website or any other electronic media.”

Now therefore, with effect from 1st April, 2010, The Geographical Indications Journal will be Published and hosted in the IPO official website www.ipindia.nic.in free of charge. Accordingly, sale of Hard Copy and CD-ROM of GI Journal will be discontinued with effect from 1st April, 2010.

**Registrar of Geographical
Indications**

G.I. APPLICATION NUMBER – 231

Application Date: 04-01-2011

Application is made by Erode Manjal Vanigarkal Matrum Kidangu Urimaiyalargal Sangam, No. 85, Manjal valagam, Erode, District: Erode – 638 107, Tamil Nadu, India for Registration in Part A of the Register of **Erode Manjal (Erode Turmeric)** under Application No. 231 in respect of Spice - Turmeric falling in Class –30 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) Name of the Applicant** : Erode Manjal Vanigarkal Matrum Kidangu Urimaiyalargal Sangam
- B) Address** : Erode Manjal Vanigarkal Matrum Kidangu Urimaiyalargal Sangam
No. 85, Manjal valagam, Erode,
District: Erode – 638 107,
Tamil Nadu, India
- C) Name of the Geographical Indication:**
ERODE MANJAL (ERODE TURMERIC)



- D) Types of Goods** : **Class 30** – Spice - Turmeric
- E) Specification:**

Erode Manjal (Erode Turmeric) is the traditional cultivars of India traditionally grown in the Erode area of production comprising of entire Erode District, Annur and Thondamuthur (near Perur) taluks of Coimbatore District and Kangayam taluk of present Tirupur District. The cultivar is called Erode Local i.e. Chinnanadan. Erode Manjal (Erode Turmeric) is the rhizomes, both finger and bulb obtained from the Erode Local cultivar consisting of mainly chinnanadan types predominantly grown in Erode area of production of Tamilnadu.

The mean length of fingers of Erode Manjal (Erode Turmeric) is about 4.15cms and the mean circumference is about 3.03cms. The mean bulb length of mother rhizomes is about 4.54cms, and the mean circumference about 6.54cms.

The characters of Erode Manjal (Erode Turmeric) Grown in the Erode area of production are:

S. No.	Quality Parameters	Characteristics of Erode Manjal (Erode Turmeric)
1	Fresh Rhizome Yield	15 to 40 per ha
2	Curcumin content	2.5 to 4.5 %
3	Colour	Golden Yellow
4	Resistance to Pest	Upto 100 days after boiling

F) Description:

Erode Manjal (Erode Turmeric) comes under the genus *Curcuma Longa* Linn and belongs to family Zingiberaceae. The traditional cultivars of India are known by the name of the locality where they are grown. The turmeric traditionally grown in Erode is called Erode Manjal (Erode Turmeric) and the cultivar is called Erode Local i.e. Chinnanadan. In Tamil language 'chinna' means small and 'nadan' means localized, meaning local cultivar with small rhizomes. Erode Manjal (Erode Turmeric) is the rhizomes, both finger and bulb obtained from the Erode Local cultivar consisting of mainly china nadan types predominantly grown in Erode District of Tamil nadu.

The mean length of fingers of Erode Manjal (Erode Turmeric) is about 4.15cms and the mean circumference is about 3.03cms. The mean bulb length of mother rhizomes is about 4.54cms, and the mean circumference about 6.54cms.

Erode Manjal (Erode Turmeric) has got characteristic aroma and flavor which enabled its fame in the national and international market mainly because of its suitability for use in manufacture of curry power.

There are three grades of Erode Manjal (Erode Turmeric) which come under the category "for varieties other than Alleppey Variety" as per Agmark Grade specifications both for bulbs and fingers. They are special, good and fair.

The mother rhizomes used for planting as seed materials will be shriveled after 8-10 months. While harvesting, they are collected separately, just dried and sold in the market as "Panankali". The yield of panankali from Erode Local cultivar will be in the region of 25-50 kg per acre. The Erode Panankali has higher curcumin content and hence used for extraction of Curcumin / turmeric oleoresin.

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G) Geographical area of Production and Map as shown in page no: 18

The area of production of Erode Manjal (Erode Turmeric) is;

- i. the entire Erode District lying within latitude 10°36' and 11°58' N, and longitude 76°49' and 77°58', and
- ii. Annur and Thondamuthur (near Perur) taluks of Coimbatore District lying within 10°10' to 11°30' North Latitude and 76°40' and 77°30' East Longitude.
- iii. Kangayam taluk of present Tirupur District
- iv. The prominent areas of cultivation of Erode Manjal (Erode Turmeric) in Erode District are Kodumudi, Sivagiri, Havani, Gobichettipalayam, Anthiyur, Chennampatti, Sathyamangalam and Talavady. Annur and Thondamuthur (near Perur) taluks of Coimbatore District, Kangayam taluk of present Tirupur District adjacent to Erode District.

Erode Manjal (Erode Turmeric) requires hot and moist climate. The temperature ranges from 20°C to 37.9°C. The annual rainfall ranges from 600 - 800mm. It is mostly grown under irrigated conditions as the annual rainfall received is low. Kalingarayan canal and LBP (Lower Bhavani Project) canal are the major sources of irrigation besides tanks and wells. Erode Manjal (Erode Turmeric) thrives best on loamy soils or alluvial soils. Mostly red loamy soils are present. Soil must be loose, friable and fertile. Heavy clay soils and stony soils are not suitable for development of rhizomes.

H) Proof of Origin (Historical records):

The earliest reference about turmeric can be seen in Atharvaveda (Ca. 6000 Yr. B.P.) in which turmeric is prescribed to charm away jaundice.

Ancient Indian medical pharmacopoeia, Ayurveda, extensively mention about the historical turmeric being an exceptionally effective herb for stomach disorders and food poisoning. According to Ayurveda and Siddha, in Rasa it is Kat (pungent) and Thikta (bitter) and in Veerya (potency) it is hot. It is Ruksha (acute) and is used to cure wounds, diabetes, anemia, blood impurities, infection by worms and chronic cold.

During the sangam era i.e. 2000 BC of ancient Tamils, the peasants grew turmeric plants in front of their houses.

There are evidences that turmeric is one of the commodities traded during the Chera, Chola and Pandian Kingdoms in Tamil History. In India, turmeric assumed greater importance in the religious and socio-cultural traditions even now because turmeric is considered as an auspicious, holy and prosperity bringing item.

Turmeric is known to be one of the oldest spices that have been used in India since time immemorial. That is why it is avowed that turmeric belongs to India indigenously and also referred to as Indian saffron.

Turmeric is probably native of South East Asia having its centre of origin in India. Originating in India, turmeric has reached China by 700 AD, East Africa by 800 AD and West Africa by 1200 AD and also had come popular all through the world.

Initially it was cultivated as a dye, then with time ancient population started using for its cosmetic and beautification purposes and eventually as a medicine. It is also known that Arab traders had carried with them turmeric to Europe in the 13th Century. Marco Polo, while on his several legendary voyages to India via the Silk route, was so impressed by turmeric that he had mentioned it as a vegetable that possesses properties of saffron, but actually is not saffron. It is extensively cultivated in India followed by Bangladesh, China, Myanmar, Cambodia, Malaysia, Indonesia and Philippines.

Erode was a Taluk under the Coimbatore District till 1979. The Gazetteer of South India [1901-1906], under the sub-head commerce for the Coimbatore District, says this: "The chief exports are cereals and pulses, chillies, turmeric, spices, cotton, oilseeds, tobacco, ghee, sandalwood, plantains, jaggery, brass and copper vessels, cattle and leather". It is also mentioned in the Gazetteer that the exports and imports are mainly to and from the neighboring districts.

As per the Posselts's Textile Journal [February 1917], it is mentioned that Erode is one of the districts in the Madras Presidency where turmeric is chiefly cultivated. It is also mentioned that total exports of turmeric to the United States from all ports in the Madras Presidency for the six months ended June 30, 1916 were, 1,745,924 lb., valued at \$ 108,733.

It is reported that Turmeric is cultivated on fairly large areas on the both sides of Bhavani River and Kalingarayan Canal. There are two important varieties – Chinnanadan and Perumnadan. Of these Chinnanadan is more popular, better liked and grown more largely because of vigorous growth and its sweet smell. The other variety Perumnadan does not possess these good points and sells at lower rate than Chinnanadan. Perumnadan, may therefore be expected to become almost extinct. [Source: Turmeric – Cultivation of Turmeric in the Bhavani and Erode Taluks by C.S Rajaratnam. The Journal of the Madras Agricultural Students Union, Vol.XI-1923].

It is reported that Turmeric is cultivated in garden lands as well as wet lands to the extent of about 3000 acres in Coimbatore District and the important taluks growing turmeric are Bhavani, Gobichettipalayam and Erode. [Source: Turmeric Survey by S.Lakshmanan. The Madras Agricultural Journal, Vol. XXXV, August 1949 No.8]

The traditional cultivars of turmeric in India are known by the name of locality where they are grown. The turmeric traditionally grown in Erode area is called Erode Manjal (Erode Turmeric) and the cultivar is Erode local [Chinnanadan]. In Tamil 'Chinna' means small and 'nadan' means localized .ie the local cultivar with small rhizomes.

Recognizing the potential of Erode Manjal (Erode Turmeric), Tamil Nadu Agriculture University has started Research work on Turmeric at Faculty of Horticulture, Coimbatore as well as its Agricultural Research Station at Bhavani Sagar in Erode district and released three improved varieties of Erode Manjal (Erode Turmeric) viz., Co.1, BSR-1 and BSR-2.

At present, Turmeric is grown as important commercial spice crop in the Erode and bordering areas in Coimbatore district and thousands and thousands of small and marginal farmers are involved in its cultivation. Erode is one of the major markets for turmeric in India.

I) Method of Production:

Production Process:

Turmeric is mostly grown as pure crop. It is also grown as intercrop in Coconut plantations. Erode Manjal (Erode Turmeric) is mostly grown as pure crop. The land is ploughed well three to four times by bringing it to fine tilth. Ridges and furrow system is generally adopted for planting.

Selection and Sowing:

Crop rotation is adopted for turmeric cultivation. Both fingers and bulbs are used as planting material. Generally Finger rhizomes are used as planting materials than bulbs. The seed rhizomes are planted at a depth of 4cm. June – July is the planting season. In some areas in Bhavani and Gobi, early planting during April – May is also done. Mother rhizomes are collected from the disease free healthy and good yielding plants from the previous crop during harvesting season and stored in the traditional way till planting. The seed rate varies from 800 to 1000kg per acre. The germination will commence in 30 days.

Inter-Cropping :

Short durations crops viz., onion, maize, pulses, vegetables etc. are grown as intercrop in turmeric. Chilli is grown as border crop. *Sesbaniaaegytiaca* (locally known as Semmanchedi – Chithagathi in Tamil) is grown as intercrop in Kodumudi / Sivagiri areas of Erode district. It is a leguminous plant fixing atmospheric nitrogen into the soil and thereby improves the soil fertility. Besides providing shade, the leaves are used as fodder material for cattle and the sticks after harvest will provide additional income as it is preferred for Pandal making. The sticks are also used as fuel for boiling turmeric rhizomes.

Manuring :

Organic manures viz. Farm Yard Manure or Compost is added before the last ploughing as basal application. Neem cake is applied as a soil amendment and also to control the nematode problem. Fertilizers are also applied as basal before planting. Top dressing of the fertilizers are done during 30,60,90,120 and 150 days after planting. Bio-fertilizers are also applied to improve the soil fertility.

Irrigation:

First irrigation is given immediately after planting. Then irrigation is given at 07-10 days interval depending upon the soil moisture condition. Efforts are made to prevent water logging particularly during rainy season by taking drainage channels.

Pre-emergence weedicide is applied immediately after planting to prevent weed growth. Then manual weeding is done 3-4 times depending upon the weed growth and earthing up is done. Intercrop cultivation reduces weed growth.

Thrips, stem borer, scales and nematode are the major pests affecting turmeric. If the infestation is severe, one or two rounds of insecticide applications are done to manage the pest problem.

Rhizome rot and leaf spots are the major diseases infecting turmeric. Use of disease free rhizomes, pre-treatment of rhizome with bio-control agents or chemicals and providing adequate drainage and adopting crop rotation will take care of the rhizome rot problem. If the disease incidence is severe, drenching with bio-control agents or fungicides is done. In the case of severe incidence of leaf spot diseases, one or two rounds of fungicidal application is done.

Plants will be ready for harvest in eight to nine months after planting. The signs of maturity of rhizomes are: (1) Central Shoots fail to come up. (2) Lower leaves turn yellow. Irrigation is stopped 15 days before harvest and the plants are cut at 15cm above ground level.

Harvesting :

Harvesting is done manually by digging and excavating the rhizomes. The average yield of fresh rhizomes will be 30 to 32 Tonnes per hectare. The harvesting season commences from the end of January and extends upto March. Seed materials are selected and kept separately before processing.

Processing of turmeric

Immediately after harvest the rhizomes are kept in heap for 2-3 days. Then the fingers and bulbs are separated. Processing in turmeric consists of four stages viz. boiling, drying, polishing and coloring.

Boiling: Traditionally the rhizomes are boiled in copper or galvanized iron or earthen vessels with water just enough to soak them. Boiling is stopped when forth comes out and white fumes appear jiggling out a typical odour. The boiling lasts for 45-60 minutes till the rhizomes are soft. When white fumes are seen or when a broom stick passes into rhizomes by mere pressure, then it is taken that the boiling is completed. Then the pan is immediately removed and emptied on the thrashing floor.

The stage at which the boiling is stopped largely influences the colour and aroma of the final product. Over cooking spoils the colour of the final product while under cooking renders the dried product brittle and becomes susceptible to pest attack. The fingers and bulbs are boiled separately. Boiling has to be done within 2-3 days after harvest. Boiling destroys the vitality of fresh rhizomes, obviates the raw odour and yields uniformly coloured product and reduces the drying time. Boiling is done to gelatinize the starch and thereby facilitates uniform drying.

The Tamil Nadu Agriculture University has come out with an improved boiling equipment using steam technology suitable for small and medium farmers. In this method, quality product is obtained; drying time is reduced besides savings in labour and water. Medium and Large scale steam boiling units suitable designed by the farmers/local lathe are also available for boiling turmeric in the Erode district.

Drying: The boiled rhizomes are allowed to cool gradually and spread out in 5-7cm thick layer on the clean surfaces viz., polythene sheets, drying yard etc. for sun drying.

A thinner layer is not desirable as the color of the dried product may be adversely affected. During night time, the material should be heaped and covered to prevent dew fall on the rhizomes. It may take 10-15 days for completely drying. When the dried finger breaks cleanly with metallic sound, it is sufficiently dry and the moisture content is below 10%. Improperly dried rhizomes is susceptible for microbial growth and infestation by storage pests.

Polishing: Polishing is done before marketing the dried produce. Dried turmeric has rough appearance and dull colour outside surface with scales and root bits. Unpolished turmeric will fetch a lower price in the market. The appearance is improved by smoothening and polishing the outer surface by manual or mechanical rubbing. Earlier manual polishing was practiced by rubbing the rhizomes on hard surface. Now Erode Manjal (Erode Turmeric) is polished using mechanical polishers. Mechanical polishing is carried out in polishing drums having a capacity ranging from 2 bags to 10 bags at a time. The drum is mounted on a central axis, the sides of which are made of expanded metal mesh. When the drum filled with turmeric is rotated, polishing is done by abrasion of the surface against the mesh as well as by mutual rubbing against each other as they roll inside them. Polishing will be done 30-45minutes. Polishing is done during bright sunny days from 10.30am to 5pm or 6pm to facilitate better polishing. For export polishing. For export purposes, sometimes double polishing is done.

Colouring: The colour of the turmeric rhizomes have market appeal. In order to improve the surface colour, turmeric powder is added to the polishing drum in the last 10minutes of polishing. No chemical is added to improve the colour.

The curing percentage of Erode Manjal (Erode Turmeric) is around 19-20%

Storage: For short time storage upto 3-4months, dried turmeric is packed in gunny bags and stored in the storage room of the farm which is cool and dry protected from light. Dunnage is provided to the bags to prevent moisture ingress from the floor. The bags are kept 45-50cm away from the side wall and roof to prevent moisture ingress. The store rooms are protected from entry of birds, insects, rodents etc. If turmeric is stored for long time, there are chances for storage pest infestation. Hence for long period storage, the turmeric bags are stored in the Regulated Market Godowns or in the warehouses of state/ central warehousing corporations. Here, the timely fumigation practices are undertaken with the approved chemical by the approved agencies. The institutions collect nominal charges from the growers for storage of turmeric. Before marketing the dried rhizomes are polished and then marketed immediately.

Packing : After removing foreign matter, the dried turmeric is packed in gunny bags.

J) **Uniqueness:**

The uniqueness of Erode Manjal (Erode Turmeric) is based on all the three parameters specified in the GI Act, 1999. That is uniqueness is based on;

- a. Reputation, in the national and international markets where it is sold,
- b. Quality, and
- c. Other characteristics.

The Erode Manjal (Erode Turmeric) has a characteristic aroma and flavor making it suitable for manufacture of turmeric powder as well as various curry powders. The traditional cultivar coupled with the peculiar agroclimatic conditions prevailing in Erode and the adjoining areas of production makes the Erode Manjal (Erode Turmeric) unique. One of the unique attributes is the Soil, mainly red sandy soil and gravel or moderately red loam and occasionally black loam tracts. That apart, the flavor and rich appearance (Brilliant Orange) of the turmeric and the said curcumin content, are the unique factors which lead to the specialty of Erode Manjal (Erode Turmeric).

Erode Manjal (Erode Turmeric) thrives best on loamy soils or alluvial soils. Mostly red loamy soils are present. Soil must be loose, friable and fertile. Heavy clay soils and stony soils are not suitable for development of rhizomes.

It is one of the important constituent variety of Erode Manjal (Erode Turmeric) which has got preference in the domestic and international markets. The planting season is June-July and the harvesting season is January to March. The Erode Manjal (Erode Turmeric) rhizomes are distinguishable from other varieties in the market based on its size, appearance, colour and slightly bent fingers.

Erode Manjal (Erode Turmeric) is grown in Erode district and bordering areas of Erode districts. Erode local is the cultivar which is very much suitable for the geographical conditions prevailing in Erode district with an average yield of 30-32 tonnes (fresh turmeric) per ha. Even after introduction of new high yielding varieties from other regions, Erode local is the ruling variety occupying 60%-70% of the area grown under turmeric in Erode and bordering areas of Coimbatore districts because of its superiority in colour, aroma, yield and disease tolerance attributes.

Erode Manjal (Erode Turmeric) is cultivated, processed and marketed mostly in Erode district and its bordering areas in Coimbatore District. Erode is the major market for Erode Manjal (Erode Turmeric).

Therefore only those turmeric obtained from the Erode local cultivars or improved varieties of Erode local which have all the above attributes, satisfy the technical combinations as those mentioned above and are grown in and around Erode districts can be categorized as Erode Manjal (Erode Turmeric).

Erode Manjal (Erode Turmeric) is the product derivative of the geographical conditions, traditional cultivar, indigenous knowledge, skill and zeal from the resources of the Erode.

Considering its uniqueness, preference in the domestic/ export market as well as to protect the producers interests, there is felt need to protect this precious variety of turmeric by registering it under Geographical Indications. Erode is synonymous with the turmeric and vice versa.

Therefore some of the unique aspects of Erode Manjal (Erode Turmeric) are;

S. No.	Parameters	Uniqueness
1	Soil	red sandy soil and gravel or moderately red loam and

		occasionally black loam tracts with pH between 4.5 to 7.5.
2	Curcumin content	2.5 to 4.5 %
3	Colour	Brilliant Orange
4	Resistance to Pest	Upto 100 days after boiling
5	Curing percentage	19 – 20 %

Uniqueness based on the other characteristics is due to the following climatic factors:

S. No	Particulars	Parameters
1	Soil Soil PH	Mainly red sandy soil and gravel, moderately red loam and occasionally black loam tracts. 4.5 – 7.5
2	Temperature	20 degree to 30 degree centigrade
3	Rainfall (annually)	800 to 1500mm
4	Humidity	Dry Tropical weather

Involvement of Human Element:

Cultivation and Marketing of Erode Manjal (Erode Turmeric) involves a great amount of human labour, skill, effort and experience.

Human Labour:

Right from ploughing to sowing of crops, manuring, irrigation, harvesting, and processing, all these activities involve a lot of human labour. The GI Application on the method of production may be relied upon in this regard. The content therein are not repeated herein so as to maintain brevity and to avoid repetition.

Human Skill

Human skill is involved in ably ploughing the land 3-4 times so as to bring the land to a fine tilth. Ridges and Farrow system is generally adopted for planting. Proper ploughing is essential, for only then the land would be properly prepared, enabling proper germination, formation of tumours / rhizomes during the growth period and in effective harvesting without damaging the rhizomes.

Similarly experience is required in applying manure, fertilizers, insecticide and pesticide at the appropriate time during the cultivating period. This has a direct impact on the growth and formation of rhizomes. Irrigation at proper intervals depending on the moisture content of the soil and rain also largely influence the growth and formation of rhizomes. Too little water adversely effects growth of the turmeric and too much of water leads to water logging and creates rhizome rot. Harvesting requires certain amount of skill and experience in manually digging and excavating the rhizome without damaging the same.

The processing of harvested Turmeric requires a very high degree of skill and experience especially during boiling, polishing and colouring. Boiling to the right degree largely influences the colour and aroma of the marketed product. Over boiling spoils the colour of the final product and under boiling renders it brittle, also enhancing susceptibility to pest attack. So skill and experience is requires to boil the Turmeric to the correct degree.

Dry Turmeric which is rough in appearance has a dull color in its outer surface. This fetches only a low price in the market. So value is added by improving its appearance. This is done by smoothing and polishing the outer surface by manual and mechanical rubbing. The entire process requires high skill and experience so as to obtain the right finish.

Further to improve the surface colour, turmeric powder is added to the polishing drum during the last 10 min of polishing. The quality of turmeric powder added depends on the quantity of rhizomes to be polished. So choosing the right amount of turmeric powder based on the quality of polishing and the duration of polishing requires high degree of skill and experience.

K) Inspection Body:

The Inspection Committee shall comprises of the following Members:

1. The President and the Secretary of the Erode Manjal Vanigarkal Matrum Kidangu Urimaiyalargal Sangam;
2. Three Members nominated by the Eexecutive Committee of the Erode Manjal Vanigarkal Matrum Kidangu Urimaiyalargal Sangam;
3. Two farmers who are non members and own agricultural cultivable land in the area of production and are into cultivation of Erode Manjal (Erode Turmeric);
4. The Superintendent of the Erode Regulated Market or such other person as nominated by the Deputy Director of Erode Marketing Committee, Government of Tamilnadu.

L) Others:

UTILITY VALUE

Turmeric has multifaceted utility right from food to natural colour to pharmaceuticals to medicinal to cosmetics to beauty and body care sectors. Turmeric is used as an auspicious item in the religious ceremonies and customs of India. It is of great use in the food, cosmetic and pharma industry.

Turmeric is used as an important spice used extensively in Indian Cuisine. It adds aroma and color to the food items. It is an essential ingredient in curries as well as curry powders adding colour and flavor. It is also used as a preservative in Indian Pickles. At present it is mainly used as a natural food colorant. It is used in baked products, dairy products, snacks, sweets etc., It is also used as colouring matter in Pharmacy.

Turmeric has been widely used in medicine. Traditional healers of India used it as a remedy form many illnesses. It is astringent, carminative, diuretic and stimulant. The antiseptic properties of turmeric are well known to the Indians. It is used to cure wounds, diabetes, anemia, blood impurities, infection by worms and chronic cold. Turmeric is used for curing skin diseases.

Turmeric has proven anti-oxidative, anti-inflammatory, anti-carcinogenic, anti-mutagenic, antimicrobial, antiviral properties

In Ayurveda, turmeric is commonly administered internally as a stomachic, tonic and blood purifier and topically prevention and treatment of skin diseases.

Curcumin extracted from turmeric possesses excellent antioxidant properties. Curcumin lowers serum cholesterol level. Curcumin affects Alzheimer's disease.

In cosmetics, it is used as an antibacterial, anti-inflammatory natural dye in shampoos, body lotions, soaps etc. Application of turmeric on the face is good to remove unwanted hairs besides imparting loveliness and complexions.

In beauty and body care, turmeric is good for pigmentation. Makes the skin translucent, glowing and maintains the pH factor. It has got cooling and soothing effect tightens the breast muscle. It possesses the property of purifying the blood.

The nutritional, pharmaceutical, cosmetic and medicinal properties of turmeric are being validated now by many R&D Institutions.

Dye extracted from turmeric is used for dyeing wool, silk and cotton.

HUMAN SKILL:

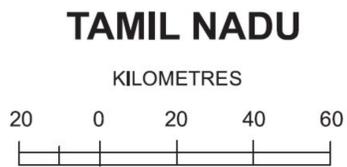
The human element lies in human labour and skill in selection of rhizomes for sowing, cultivation practices, harvesting, processing for market, storage/ on a need be bases/ and also marketing at the right time, as the market is prone to fluctuations.

Cultivation, harvesting and processing for market are labour intensive which also require skilled labour. Further, processing for market, in particular boiling and polishing require a very high degree of human skill and experience. This is what brings colour to the Turmeric, which is the ultimate price deciding factor. That apart, human skill is required during irrigation based on dryness of soil and water requirement, applying fertilizers and manures during the correct growth period. Drying also requires skill and experience, as insufficiently dried Turmeric will result in microbial growth and pest infestation; while over drying will reduce the colour, which in turn reduces the prize of Turmeric in the market. Best quality, marketable Erode Manjal (Erode Turmeric) is produced in the Erode Area as a result of the skill and experience of farmers acquired through several generation of cultivation.

Major Marketing Centres.

Erode is one of the largest market for turmeric in India. Erode Regulated Market, Erode Agricultural Producers Marketing Co-op Society, Gobi Agricultural Producers Marketing Co-op. Society and Open market are the major daily turmeric markets in Erode. Coimbatore Regulated Market is also a marketing centre for Erode Manjal (Erode Turmeric) in Coimbatore district. More than 200 turmeric mandies are involved in the trade of turmeric. Erode Manjal (Erode Turmeric) occupies about 70-75% of the turmeric grown in Erode and Coimbatore Districts.

Geographical area of Production - Erode Turmeric



BOUNDARIES:

- STATE.....
- DISTRICT.....
- TALUK.....

HEADQUARTERS:

- STATE..... ★
- DISTRICT..... ●
- TALUK..... •

The area of production of Erode Turmeric of the shaded portion :

- i. The entire Erode District lying within latitude 10°36' and 11°58' N, and longitude 76°49' and 77°58';
- ii. Annur and Thondamuthur (near Perur) taluks of Coimbatore District lying within 10°10' to 11°30' North Latitude and 76°40' and 77°30' East Longitude; and
- iii. Kangayam taluk of present Tirupur District

G.I. APPLICATION NUMBER – 613

Application Date: 16-03-2018

Application is made by Anchunadu Karimbu Ulpadhana Vipanana Sangham, Building No. III/367 C, Marayoor town, Post: Marayoor, District: Idukki - 685 620, Kerala, India for Registration in Part A of the Register of **Marayoor Jaggery (Marayoor Sharkara)** under Application No. 613 in respect of Jaggery (Sharkara) falling in Class –30 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) Name of the Applicant** : Anchunadu Karimbu Ulpadhana Vipanana Sangham
- B) Address** : Anchunadu Karimbu Ulpadhana Vipanana Sangham, Building No. III/367 C, Marayoor town, Post: Marayoor, District: Idukki - 685 620, Kerala, India

Facilitated by:

IPR Cell, Kerala Agricultural University
Agricultural Research Station,
Kerala Agricultural University, Mannuthy,
Thrissur - 680 651, Kerala, India

- C) Name of the Geographical Indication** : **MARAYOOR JAGGERY (MARAYOOR SHARKARA)**



- D) Types of Goods** : **Class 30 – Jaggery (Sharkara)**

E) Specification:

Marayoor Jaggery locally called as Marayoor *sharkara* is cane sugar (a traditional sweetener) prepared from the sugarcane grown in the Marayoor and Kanthalloor Grama panchayaths of Idukki District of Kerala State. This area lies in the rain shadow regions of Idukki district. This Jaggery is produced in farm sheds from sugarcane juice extracted by crushing the cane in electric crushers, then evaporating the juice by boiling in big pans made of copper/ GI sheets, on country kilns using the sugarcane trash as the fuel. The pan will be removed from the fire at a particular temperature (decided through manual testing using traditional knowledge) and then will be allowed to cool, to make Jaggery balls (*unda*), while hot, with hands. The Jaggery produced from the geographical area is having a higher market demand than that produced from other regions, and from the nearby localities of other states since it is very sweet in taste, is of good quality and generally produced without the addition of harmful chemicals.

The area of production of this Jaggery fall in the rain shadow region and the quality of Marayoor Jaggery is attributed to the low temperature prevailing in the area, soil characteristics, quality of water used for irrigation and Jaggery production, the traditional methods of production, and sugarcane varieties used in cultivation.

In general Marayoor Jaggery is prepared in ball form (*undasharkara*) but, minor quantities, are also produced in powder and liquid forms. No natural or synthetic colouring agents and artificial sweetening agents are added in this Jaggery. Balls are prepared by hand and the finger marks will be clearly seen on the balls. The colour is brown to dark brown. The Jaggery balls have medium hardness. Marayoor Jaggery is available in well dried form with firm consistency and non-sticky nature. It has characteristic taste and flavour. Non salty sweetness is the unique characteristic feature of this Jaggery. It is having less dirt and water insoluble matter.

Generally, Marayoor sharkara has a total sugar percentage of 77.87 to 96.52%, sucrose content of 63.0—80.0% and reducing sugar of 7.39-10.35%. The water insoluble impurities was low (0.08-0.16%) and also acid insoluble ash (0.021 to 0.14%) is low in Marayoor Jaggery. SO₂ content is within the permitted limits (32.11-36.79%). High content of iron (11-26.0%), potassium, calcium and low content of sodium are other features of this Jaggery, adding to its nutritional benefits.

F) Description of the Goods:

Marayoor Jaggery (Marayoor *sharkara*) is the unrefined, concentrated product of cane juice obtained from sugarcane grown in Marayoor and Kanthalloor panchayaths of Idukki District, Kerala. It is a traditional sweetening agent and is also used in Ayurveda medicines. Generally Marayoor Jaggery is prepared in ball form (*undasharkara*). Minor quantities are produced in powder and liquid forms. The colour is brown to dark brown. No natural or synthetic colour and artificial sweetening agents are added during this Jaggery preparation. Balls are prepared by hand so that the finger marks will be clearly seen on the balls. The Marayoor Jaggery balls have medium hardness. Marayoor Jaggery balls are available in well dried form with medium hardness and non-sticky nature. It has characteristic taste and flavour. Non salty sweetness is the characteristic unique feature of this Jaggery. It is having less dirt and soil as evident from low water insoluble matter, compared to other market samples.

Marayoor Jaggery has a pH of 5.84 to 6.09 and a total sugar content of 77.87 to 96.52%. Marayoor Jaggery is superior in quality and is generally produced without addition of hazardous chemicals. Jaggery is more nutritious than sugar. It contains sucrose, vitamin B and minerals including Ca, Zn, P, Cu etc. Sucrose is the crystalline sugar found in many plants, especially sugar cane. It is used widely as a sweetener. Sucrose content adds to the sweetness of Jaggery and is the most important component of Jaggery. Marayoor Jaggery has an average sucrose content of 63-80%.

Reducing sugar makes Jaggery to absorb moisture. Increased reducing sugar attracts fungal infections leading to quality deterioration and loss of consistency. The percentage of reducing sugar in Marayoor Jaggery ranged from 7.39 to 10.35.

The water insoluble matter in Jaggery indicates the level of impurities. Level of such impurities was found less in Marayoor Jaggery, it ranged between 0.08 to 0.16 % in Marayoor.

Acid insoluble ash on dry basis is the insoluble impurities excluding the minerals in water insoluble matter or impurities. In Marayoor Jaggery it ranged from 0.021 to 0.14%. The total ash in Marayoor Jaggery samples ranged between 1.55 to 2.63 % .The sulphated ash found in Marayoor samples ranged from 2.10 to 2.13 percentage.

The sulphur dioxide content of Marayoor Jaggery ranged from 32.11 to 36.79%.

The iron present in Jaggery increases the haemoglobin content in blood, which help to prevent anaemia by ensuring that a normal level of red blood cells is maintained. This is especially beneficial for children and pregnant women. Analysis revealed that iron content is high in Marayoor Jaggery ranging from 11.10 to 26.0 mg/100g.

The manganese and selenium in Jaggery are good antioxidants scavenging free radicles in the body. The micronutrients present in Jaggery have antitoxic and anticarcinogenic properties. Its dietary intake can prevent the atmospheric pollution related toxicity and the incidence of lung cancer. Jaggery is used to treat throat and lung infections in Indian Ayurvedic medicine. It is used in the preparations of Ayurvedic drugs. Jaggery is a good source of magnesium which helps in relieving fatigue and relaxing muscles, nerves and blood vessels. It relives the symptoms of asthma, migraine, tension and soreness in muscles. Magnesium content in Marayoor Jaggery ranged between 91.0 to 110.20 mg/100g.

The potassium and low amounts of sodium in Jaggery maintains blood pressure and reduces water retention. Sodium content in Marayoor Jaggery was low (34.21 to 96.82 mg/100g). This leads to the non-salty taste of Marayoor Jaggery. Moderate amounts of calcium, improves nutritional value of Jaggery and thus maintains optimum health and purifies blood, preventing rheumatic afflictions and disorders of bile.

Generally Marayoor Jaggery has a total sugar percentage of 77.87 to 96.52%, sucrose content of 63.0–80.0% and reducing sugar of 7.39-10.35%. The water insoluble impurities was low (0.08-0.16%) and also acid insoluble ash (0.021 to 0.014%) in Marayoor Jaggery. SO₂ content was within the permitted limits. High content of iron, potassium and calcium and low content of sodium (34.21 to 96.82mg/100g are other features of this Jaggery, adding to its nutritional benefits. Non salty sweetness and dark brown colour are the unique features of this Jaggery.

G) Geographical area of Production and Map as shown in page no: 27

Marayoor Jaggery (Marayoor sharkara) is produced from the sugarcane cultivated in Marayoor and Kanthalloor panchayaths of Idukki district, Kerala, India. The area is surrounded by Tamil Nadu in the North & North Eastern sides. Munnar of Devikulam Block lies in the Southern side and Vattavada on the South Eastern side.

The area of production of Marayoor Jaggery lies between 77°10'34.457"E 10°21'29.647"N (North), 77°12'37.27"E 10°11'10.462"N (South), 77°14'4.263"E 10°18'26.706"N (East), 77°4'19.619"E 10°13'33.744"N (West)

H) Proof of Origin (Historical records):

Marayoor and Kanthalloor are famous for the production of Marayoor Jaggery or *Marayoor sharkara*. In the great epic Mahabharatha, this area has been cited. It is said that Pandavas stayed in the area during their vanavasam and hence the place was named as *Maranjirunnayoor* meaning "the place of hiding". The oral literature says that Maranjirunnayoor slowly changed to Marayoor.

The age old people of the area remember that sugarcane cultivation flourished in the area since the last 60-70 years. People from Tamil Nadu migrated to this area when the Madurai king Thirumalainacker was defeated by Tippu Sultan, in the eighteenth century. Migrated people from Tamil Nadu created five villages which are Kanthalloor, Keezhanthoor, Karayoor, Marayoor and Kottakudi. These villages together are called as 'Anjunadu', literally meaning "five regions". It is told that Sri. Pattom Thanu Pillai, the former Chief Minister of Kerala (1960-62) established colonies in the area and attracted Kerala farmers to start agriculture in the area. These colonies are still known as Pattom colonies.

In early days rice was the major crop of the area and this area was then known as the 'Kuttanad of High range". But due to scarcity of irrigation water, sugarcane replaced rice because as compared to rice, sugarcane requires less amount of water. So an alternate system of rice and sugarcane cultivation was adopted. After rice cultivation crop residues would be left in the field itself and this increased the fertility and organic matter content of the soil and thus increased the yield of sugarcane. Gradually sugarcane became the major crop of the area. It is believed that sugarcane cultivation of the area was started by Tamil farmers, especially by Ms. Govindammal from Udhumalpet. It is also believed that sugarcane cultivation first started at Anakkalpetty, near to Marayoor.

Documents to prove the history of cultivation of sugarcane in the area in earlier days are provided below-

1. Publication of "Report of Industrial Survey of Travancore" written by S. G.Barker, Ph.D, D.I.C in the year 1919 reported the crops grown in Devikulam Taluk including Kanthalloor and Marayoor panchayaths. Potatoes, garlic, plantains, sugarcane, camphor and cinchona were grown in the area. This report revealed that sugarcane was cultivated in the area for the last 100 years.
2. The pre assessment notice from Sales Tax Officer of Munnar- Devikulam indicated that 2 acres of sugarcane cultivation can bring a net income of Rs.10840/- during the period of 1982-83.
3. Copy of "Objection letter" by Mr. Scaria Joseph to Tax Assessment Notice for the Jaggery produced in the year 1983 by Income Tax Officer of Munnar - Devikulam said that "the yield of Jaggery produced from one acre of land was 30 bags(1 bag weighing 60 kg) only".
4. Objection letter filed by Mrs. Thresia, Cheruvallath, a sugarcane farmer of the area, against "Pre-assessment notice" served by The Agricultural Income Tax Officer of Munnar-Devikulam indicated the yield of Jaggery obtained from sugarcane fields at Marayoor during 1982-83.
5. The Plan document of 9th Five Year plan of Marayoor Panchayath for the year 1998-99 revealed that sugarcane is a major crop of the area.
6. The Plan document of Marayoor Panchayath for the year 1999-2000 documented that 80% of the people in Marayoor depend on Agriculture for their livelihood security. Rice, sugarcane, ginger and coconut are the major crops of the area.
7. The area of cultivation of sugarcane in Marayoor was 800 ha during 2011 (Basic Data Book of Marayoor Krishibavan,) Documents of Kanthalloor Grama Panchayath revealed that the area of sugarcane cultivation in Kanthalloor Panchayath was 240 ha in 1995.

I) Method of Production:

Area and method of production

Area

Currently the total area of sugarcane cultivation in Marayoor and Kanthalloor panchayaths is approximately 1650 acres.

Method of sugarcane cultivation:

In Marayoor and Kanthalloor, sugarcane fields can be seen throughout the year. Major planting season is between June-December. Sugarcane setts of 2-3 eye buds are used as planting material. Sugarcane varieties from Sugarcane Breeding Institute, Coimbatore, TAMIL NADU are the ruling varieties of the area. The major sugarcane varieties of the area are CO 613 (Vellakarimbu), CO 419 and CO 86032. The variety CO 613, also called a "nadan or local", shows better rationing ability, more intermodal length, better flavor, sweetness and have duration of 13 months. Presently the popular variety is CO 86032. This variety has less plant height and hence shows less lodging. The variety is tolerant to redroot disease. It can be harvested within

10-11 months of planting without much reduction in yield and hence farmers prefer this variety.

Morphological characters of CO 86032 and CO 419 are provided below-

Character	CO 86032	Character	CO 419
Leaf size	Medium	Leaf size	Broad
Leaf colour	Dark green	Leaf colour	Green
Sheath colour	Green with purple	Sheath colour	Green with Green tinge
Sheath clasping	Loose	Sheath Clasping	Loose
Spines	Few, hard, deciduous	Spines	Present
Splits	Present	Ligular process	Lanceolate
Stem colour	Reddish pink (exposed)	Stem colour	Purple
	Greenish yellow (unexposed)	Girth	Thick
Girth	Medium	Joint	Staggered
Joint	Cylindrical	Bud Groove	Present
Bud groove	Absent	Size	Medium
Size	Medium		

Land preparation is done to bring the soil to fine tilth. For higher sugarcane yields, optimum soil environment is essential. Ploughing, tillering, levelling, earthing up, construction of ridges and furrows, making of drainage channels are the main steps in land preparation. Ploughing is done to clean the field and to incorporate previous crop's residues and organic manures. Tillage is done to loosen the surface soil, to maintain optimal soil water air relations, to have good physical conditions for early root penetration and proliferation, to incorporate preceding crop residues and organic manures and to destroy weeds and hibernating pest & disease organisms. Soil is prepared thoroughly and FYM of 1t/ha is incorporated 15 days before planting. Liming is required to adjust the pH.

Planting

Stem cuttings or sections of the stalks, called as "setts" are the planting material. Each sett contains 2-3 buds. Fresh, genetically pure, pest and disease free setts are used for planting. Germination percentage of 3-bud setts is higher. The middle bud of a 3-bud sett has the highest germination capacity. Setts are selected from the top one third of the mature sugarcane plant. A spacing of 2 feet between rows and depth of 0.5-1 feet is provided for planting the setts. Setts will be planted end to end, in a continuous manner in furrows.

Crop management

The crop will be irrigated as per requirement, at least once in 15 days or once in a month. Unwanted dry and green leaves from bottom part will be removed at regular intervals. This detrashing helps in maintaining the field clean and enhances air movement, and reduces the problem of pests and diseases. Detrashed trash can be used as mulch for moisture conservation and also as manure. Sugarcane stalks will be tied together using the bottom dry and green leaves and this practice is known as propping. It is done in 7 month after planting to prevent lodging of cane, breakage and thus loss of stalk number at harvest and thus loss of cane yield.

Harvesting

Harvesting of sugarcane is one of the important processes in Jaggery production. High yield of sugarcane and better sugar content can be obtained if harvested at the proper time i.e., 11-12 months after planting. Manual harvesting is done by using sickles and felling knives. It requires skilled labourers, as improper harvest of cane leads to loss of cane and sugar yield, and causes

poor juice quality. The top portion is cut at a point where it breaks naturally when slight force is exerted. The bottom portion of the cane contains more sucrose while the top cane contains more reducing sugars like glucose and fructose. The average cane yield will be 30t/acre and Jaggery will be 3.6t/ acre. Generally ratooning is practiced for 2-3 times after the main crop.

Production of Jaggery

Marayoor Jaggery is produced by traditional methods. Nearly 150 country sheds are operating in the sugarcane fields of the area for the preparation of unique Marayoor *sharkara*. The major operations involve juice extraction, clarification, boiling and concentration, cooling, moulding and packaging.

Extraction of juice

Clean canes without extraneous matter like soil, roots, dirt, trash and green leaves are taken for crushing. The harvested canes are crushed within 24 hours. The juicy sugar canes are churned well to extract the juice by using crusher. Crushing on the same day gives better yield. The crushed juice is filtered to remove bagasse and other suspended solids. It is then pumped to a big jar like container to allow for sedimentation of dirt's. The juice is then transferred to a large plate shaped round bottom copper/ GI boiling vessel. The capacity of the boiling vessel is 1000 L. The juice is not mixed with any harmful chemicals, colours, sweeteners etc. and hence is naturally good for health.

Clarification

Fresh juice of sugarcane contains suspended impurities in the form of coarse particles and colloids, soil particles, wax, fat, protein, gum etc. These impurities affect Jaggery colour, texture, hardness etc. The process of removing these impurities and other unwanted materials from juice is called clarification. Boiling acidic juice will invert the sucrose leading to problems in solidification and development of dark coloured Sharkara. The clarificants makes juice clear. Lime is the major clarificant used in the area. 200g lime is generally added to the solution. The juice will be cleaned during heating and boiling using clarificants, to decrease the mud volume. The mud will be frequently removed from the surface of the boiling solution. The syrup will be concentrated by boiling. Long wooden spoon is used to mix the solution throughout the boiling process.

Boiling and concentration

Sugarcane juice will be boiled in huge furnace. Bagasse is used as fuel for the furnace. Efficiency of furnace is improved by installing proper chimney, maximizing the heat absorption by providing a baffle in the furnace and using well dried bagasse. Pans made up of galvanized iron sheets reduce the contamination. The ash at the bottom of the furnace is removed periodically to provide proper air flow and better combustion of the bagasse.

After juice clarification, the juice is boiled vigorously to evaporate excess water. After certain consistency juice starts frothing. Stirring will be continued to prevent charring and spilling over pan sides. This process of boiling and cleaning continues till the Critical striking temperature is reached. The critical striking temperature for solid Jaggery varies from 200°C to 230°C. Critical striking temperature and juice consistency to stop boiling is assessed with traditional skill and method. A small quantity of syrup is dropped into cool water and its consistency is observed. If the syrup dissolves, it has not attained the striking point. If the syrup solidifies the striking point has reached. Often the consistency is assessed with bare hand, using traditional wisdom. Sharkara makers will dip their fingers in cold water and then in boiling juice in the pan and immediately again in water to assess the concentration of the juice. In water if the juice solidifies, it has reached striking point. Sometimes cooking oil is added in pans @ 50-100ml / 1000 litre of juice. Once striking point is reached, concentrated juice is removed from pan and transferred to wooden trough (setting tray) for setting. Nearly after 1 hour, the semi-solid Jaggery is hand-rolled into balls and then kept for 30 minutes in open air to reduce the moisture content, then packed for final disposal. Jaggery without colouring agents will be

brown in colour. *Undasharkara* (ball shaped, solid form) is the main product of the area while *paani* (liquid form), and powder form are also produced in minor quantities. The approximate total production of Marayoor Jaggery is 6000 ton/ year. Small scale producers hire the furnaces and sheds of bigger producers for Jaggery production.

Normally Jaggery yield will be 10-12% of juice yield. The average yield of Jaggery from 1 acre will be 3.6t. The approximate cost of cultivation for one acre of sugarcane and production of Jaggery from that cane, at Marayoor will be Rs.1,40,000 while the total income will be Rs.1,80,000 making a net benefit of Rs.40,000/acre.

Packing and storage

The prepared Jaggery is packed in sacks with a layering of palm leaf. One sack will contain 60 kg of Jaggery. Packed Jaggery balls can be stored for 3 months under ambient conditions.

Marketing

Marayoor Jaggery is mainly marketed in the Southern districts of Kerala, and some quantity is exported to other countries like USA, Dubai and UK. Local farmers sell their products to local traders and marketing agencies like Anjunadu Karimpu Ulpadhana Vipana Sangam, Marayoor, established in 2012, MAHADS (Marayoor Hills Agricultural Development Society) established in 2015 and MAPCO (Marayoor Agriculture Product Company) established in 2016. The price for good quality Marayoor Jaggery varies between Rs.50- 75/Kg. If the quality is less the price will also be less. Now efforts are taken to give training for production of good quality Jaggery without addition of harmful chemicals.

J) Uniqueness:

The sweet and natural water, loamy soil and cool tropical climate make Marayoor sharkara made from the sweetest sugarcane grown in Marayoor, tastier than those produced in other regions. Its taste is very unique compared to other. Jaggery Marayoor Jaggery is non-salty in taste and is produced without the addition of harmful chemicals, and is superior in quality. It is a traditional sweetening agent and is also used in Ayurveda medicines. Generally Marayoor Jaggery is prepared in ball form (*undasharkara*). Minor quantities are produced in powder and liquid forms. The colour is brown to dark brown. No natural or synthetic colour and artificial sweetening agents are added in this Jaggery preparation. Balls are prepared by hand so that the finger marks will be clearly seen on the balls. The balls have medium hardness. Marayoor Jaggery balls are available in well dried form with firm consistency and non-sticky nature. It has characteristic taste and flavour. Non salty taste is the characteristic unique feature of this Jaggery. It is having less dirt and soil as evident from low water insoluble matter. Sucrose content adds to the sweetness of Jaggery and is the most important component of Jaggery. Marayoor Jaggery has an average sucrose content of 63-80% and a reducing sugar content of less than 10%. Marayoor Jaggery imparts better flavour and sweetness to dishes. The sulphur dioxide content of Marayoor Jaggery ranged from 32.11 to 36.79% and is within the permissible limits. High content of iron, potassium, calcium and low content of sodium are other features of this Jaggery, adding to its nutritional benefits and non salty taste.

It is believed that Marayoor Jaggery has medicinal properties. This Jaggery is used in the preparation of many Ayurvedic medicines. Famous Ayurveda medicine manufacturers in Kerala like Oushadi and Nagarjuna takes this Jaggery for the preparation of Ayurveda medicines. It is also used for the preparation of unique sweet dishes in temples in Kerala.

Jaggery in general contains natural phyto-chemicals, which activates the digestion and helps in correcting digestive problem. Use of Jaggery with black pepper increases appetite. Jaggery contains many vitamins and minerals. High iron content in Jaggery is good for small school children. It is added in the preparation of medicines used for increasing haemoglobin level.

Another specialty of this Jaggery is that it is made in the farm itself in a traditional manner based on traditional knowledge. Jaggery production is a cottage industry in Marayoor and Kanthalloor Panchayaths and now a days invites tourist attractions.

K) Inspection Body:

Inspection body will be constituted with the following members

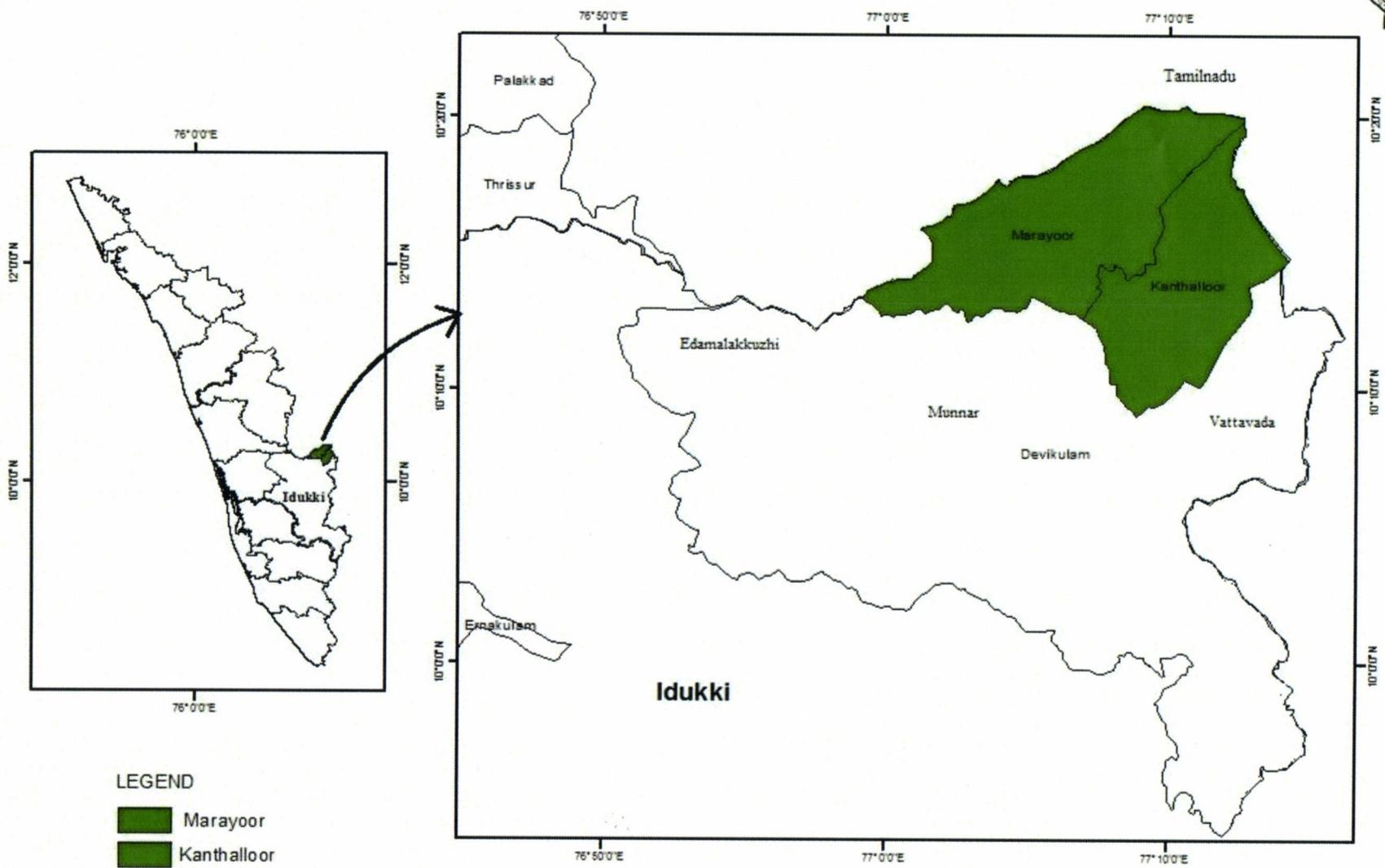
1. Director of Research, Kerala Agricultural University
2. Principal Agricultural Officer, Idukki district, Kerala
3. Coordinator, IPR Cell, Kerala Agricultural University
4. Asst. Director of Agriculture, Devikulam Block, Idukki district.
5. President of Marayoor Grama panchayath
6. President of Kanthalloor Grama panchayath
7. Agrl. Officer, Krishibhavan, Marayoor
8. Agrl. Officer, Krishibhavan, Kanthalloor
9. President, Anchunadu Karimbu Ulpadhana Vipana Sangham, Marayoor
10. Secretary, Anchunadu Karimbu Ulpadhana Vipana Sangham, Marayoor
11. President, MAHAD, Marayoor
12. Secretary, MAHAD, Marayoor
13. MD, MAPCO, Marayoor
14. CEO, MAPCO, Marayoor
15. Farmer representative – 1.
16. Farmer representative –2.
17. Farmer representative –3.

L) Others:

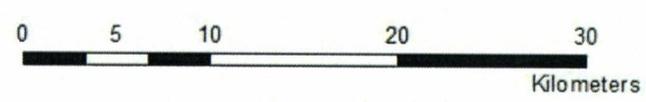
Marayoor and Kanthalloor panchayaths are located in Devikulam block in Eastern part of Idukki District, Kerala, near to the border of Tamil Nadu. These are rain-shadow villages on the Eastern slopes of the Western Ghats, lying nearly 40 km away from Munnar town. The enchanting beauty of the area offers diversity in every aspect of the land and its culture. Hamlets, rocky hills, rivers, brooks, *muniyaras* (dolmenoids), sugar cane fields, waterfalls, sandal wood, bamboo forests and a variety of cool season vegetables and fruits add to the beauty of these hill stations. The area is famous for the rare plant, Neelakurinji (*Strobilanthes kunthianum*) which flower once in 12 years. It is different from other places of Kerala based on geography, climate, weather, crops cultivated, culture etc. Many tribal settlements are located in the area. The jungles and hillsides of Marayoor are dotted with remnants of dolmenoid cists called *muniyaras*, which are 1000 years old.

Chinnar - the wildlife sanctuary in Marayoor is famous for unique flora and fauna. Natural vegetation includes tropical evergreen forests and grasslands. Marayoor has more than 1000 species of flowering plants and medicinal plants and also sandalwood forests, and is the only place in Kerala where natural sandalwood forest is present. Sugar cane, cool season vegetables (like cabbage, cauliflower, carrot, beet root, beans etc.), cereals and millets, spices like cardamom, garlic, onion, fruit crops etc. are the major crops of the area. Marayoor has more than 1000 species of flowering plants and medicinal plants.

Area of Production of Marayoor Jaggery



LEGEND
■ Marayoor
■ Kanthalloor



General Information

What is a Geographical Indication?

- It is an indication,
- It is used to identify agricultural, natural, or manufactured goods originating in the said area,
- It originates from a definite territory in India,
- It should have a special quality or characteristics unique to the geographical indication.

Examples of possible Geographical Indications in India:

Some of the examples of Geographical Indications in India include Basmati Rice, Darjeeling Tea, Kancheepuram silk saree, Alphonso Mango, Nagpur Orange, Kolhapuri Chappal, Bikaneri Bhujia etc.

What are the benefits of registration of Geographical Indications?

- It confers legal protection to Geographical Indications in India,
- It prevents unauthorized use of a registered Geographical Indication by others.
- It boosts exports of Indian Geographical indications by providing legal Protection.
- It promotes economic Prosperity of Producers.
- It enables seeking legal protection in other WTO member countries.

Who can apply for the registration of a Geographical Indication?

Any association of persons, producers, organization or authority established by or under the law can apply.

The applicant must represent the interest of the producers.

The application should be in writing in the prescribed form.

The application should be addressed to the Registrar of Geographical Indications along with prescribed fee.

Who is the Registered Proprietor of a Geographical Indication?

Any association of persons, producers, organisation or authority established by or under the law can be a registered proprietor. Their name should be entered in the Register of Geographical Indications as registered proprietor for the Geographical Indication applied for.

Who is an authorized user?

A producer of goods can apply for registration as an authorized user, with respect to a registered Geographical Indication. He should apply in writing in the prescribed form along with prescribed fee.

Who is a producer in relation to a Geographical Indication?

A producer is a person dealing with three categories of goods

- Agricultural Goods including the production, processing, trading or dealing.
- Natural Goods including exploiting, trading or dealing.
- Handicrafts or industrial goods including making, manufacturing, trading or dealing.

Is registration of a Geographical Indication compulsory?

While registration of Geographical indication is not compulsory, it offers better legal protection for action for infringement.

What are the advantages of registering?

- Registration affords better legal protection to facilitate an action for infringement.
- The registered proprietor and authorized users can initiate infringement actions.
- The authorized users can exercise right to use the Geographical indication.

Who can use the registered Geographical Indication?

Only an authorized user has the exclusive rights to use the Geographical indication in relation to goods in respect of which it is registered.

How long is the registration of Geographical Indication valid? Can it be renewed?

The registration of a Geographical Indication is for a period of ten years.

Yes, renewal is possible for further periods of 10 years each.

If a registered Geographical Indication is not renewed, it is liable to be removed from the register.

When a Registered Geographical Indication is said to be infringed?

- When unauthorized use indicates or suggests that such goods originate in a geographical area other than the true place of origin of such goods in a manner which misleads the public as to their geographical origins.
- When use of Geographical Indication results in unfair competition including passing off in respect of registered Geographical indication.
- When the use of another Geographical Indication results in a false representation to the public that goods originate in a territory in respect of which a Geographical Indication relates.

Who can initiate an infringement action?

The registered proprietor or authorized users of a registered Geographical indication can initiate an infringement action.

Can a registered Geographical Indication be assigned, transmitted etc?

No, A Geographical Indication is a public property belonging to the producers of the concerned goods. It shall not be the subject matter of assignment, transmission, licensing, pledge, mortgage or such other agreement. However, when an authorized user dies, his right devolves on his successor in title.

Can a registered Geographical Indication or authorized user be removed from the register?

Yes, The Appellate Board or the Registrar of Geographical Indication has the power to remove the Geographical Indication or authorized user from the register. The aggrieved person can file an appeal within three months from the date of communication of the order.

How a Geographical Indication differs from a trade mark?

A trade mark is a sign which is used in the course of trade and it distinguishes goods or services of one enterprise from those of other enterprises. Whereas a Geographical Indication is used to identify goods having special characteristics originating from a definite geographical territory.

THE REGISTRATION PROCESS

In December 1999, Parliament passed the Geographical Indications of Goods (Registration and Protection) Act 1999. This Act seeks to provide for the registration and protection of Geographical Indications relating to goods in India. This Act is administered by the Controller General of Patents, Designs and Trade Marks, who is the Registrar of Geographical Indications. The Geographical Indications Registry is located at Chennai.

The Registrar of Geographical Indication is divided into two parts. Part 'A' consists of particulars relating to registered Geographical indications and Part 'B' consists of particulars of the registered authorized users.

The registration process is similar to both for registration of geographical indication and an authorized user which is illustrated below:

